

Clinical effects of *Foeniculum vulgare* extract on primary dysmenorrhea

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Abstract

Introduction: Primary dysmenorrhea (PD) is seen in more than 95% of women of childbearing years. PD causes absence from school and workplace and has annually resulted in 600 million work-hours of absenteeism and two billion dollars of financial loss in America. Considering the known side-effects of chemical drugs in the management of primary dysmenorrhea, and the use of *Foeniculum vulgare* (FV) in traditional medicine practices as an energizing, tranquilizing and anti-spasmodic medicinal herb, this study was done to determine the effects of FV's extract on the reduction of pain and other systemic symptoms accompanying PD in female students at Shahid Beheshti University in 2005.

Materials & Methods: In this double-blind clinical trial, 90 randomly selected subjects diagnosed with PD were studied (46 cases and 44 controls). Five capsules containing 46 mg of *Foeniculum vulgare* and identical placebos were provided to be taken daily by the case and control groups respectively, during the first three days following the onset of dysmenorrheal pain whenever they needed the medications. Severity of dysmenorrheal and systematic symptoms were assessed and compared before the study and during two consecutive menses with Andersch and Milsom's verbal multidimensional scoring system. The results were analyzed by SPSS (Version 10) through calculations of Friedman test, non-parametric repeated measures, and Mann-Whitney test to compare the two groups.

Results: Severity of pain in the treated group with *Foeniculum vulgare* extract in comparison with the placebo group, showed a significant statistical difference ($p < 0.001$). Despite a reduction in the severity of systemic symptoms in both groups, statistically significant differences were not observed considering systemic symptoms except for fatigue within borderline limits ($p = 0.058$).

Conclusion: In accordance to the results of this study, it seems that *Foeniculum vulgare* extract can be effective in reducing the severity of dysmenorrhea. More research with larger sample sizes and longer periods of time are required to confidently declare the mentioned results.

Key Words: Primary dysmenorrhea, *Foeniculum vulgare*, Systemic symptoms, Pain, Medicinal herb, Puberty, Menstruation.

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